

## PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)



REC'D 10 MAY 2005

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Applicant's or agent's file reference PCT-2235		FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. <b>PCT/KR2004/000856</b>	International filing date(day/month/year) <b>14 APRIL 2004 (14.04.2004)</b>	Priority date (day/month/year) 14 APRIL 2003 (14.04.2003)	
International Patent Classification (IPC) or national classification and IPC  <b>IPC7 B01D 39/00</b>			
Applicant  <b>SK CORPORATION et al</b>			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.	
3. This report is also accompanied by ANNEXES, comprising:	
a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:	
<input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).	
<input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.	
b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____ containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).	
4. This report contains indications relating to the following items:	
<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application

Date of submission of the demand  <b>09 NOVEMBER 2004 (09.11.2004)</b>	Date of completion of this report  18 APRIL 2005 (18.04.2005)
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer  LEE, HYUN SONG  Telephone No. 82-42-481-8296 

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/000856

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☒ This report is based on translations from the original language into the following language English, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☒ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ the international application as originally filed/furnished

- ☐ the description:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☐ the claims:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☐ the drawings:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☐ the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	1-21	YES
	Claims	None	NO
Inventive step (IS)	Claims	1-21	YES
	Claims	None	NO
Industrial applicability (IA)	Claims	1-21	YES
	Claims	None	NO

**2. Citations and explanations (Rule 70.7)**

Reference is made to the following document:

D1=EP 369163

**1. Novelty and Inventive Step**

Claim 1 of the present invention relates to a filter for removing the particulate in the exhaust gas from a diesel engine consisting of an oxidizing catalyst manufactured by impregnating colloid solution of platinum salt and platinum metallic salt; and a catalyst filter manufactured by impregnating one or more platinum metallic salt or platinum salt. Claim 13 relates to a method of manufacturing the filter for removing the particulate in the exhaust gas from a diesel engine featuring by the following steps: manufacturing an oxidizing catalyst by impregnating colloid solution of platinum salt and platinum metallic salt and forming a catalyst filter manufactured by impregnating one or more mixed metallic salt or platinum salt into colloid solution.

D1 relates to a particulate removing catalyst filter in which an oxidizing catalyst is carried on the surface portions of an air-permeable substrate through which the exhaust gas is adapted to be passed, and a particulate removing catalyst filter in which a catalyst is carried on a thin wire net or metallic plate having a plurality of fine through-holes. The exhaust gas from a diesel engine is forcibly passed through the filter, thereby to remove particulates in the exhaust gas.

Comparing claim 1 and 13 with D1, there is no remarkable difference in the art of a filter for removing the particulate in the exhaust gas from a diesel engine. However, not disclosed in D1 is the art of an oxidizing catalyst manufactured by impregnating colloid solution of platinum salt and platinum metallic salt, and a catalyst filter manufactured by impregnating one or more mixed metallic salt or platinum salt of claims 1 and 13.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.  
Continuation of:

Box No. V

Accordingly, claims 1 and 13 meet the criteria set out in Article 33(2) and (3) PCT since D1 does not teach or fairly suggest an oxidizing catalyst manufactured by impregnating colloid solution of platinum salt and platinum metallic salt, and a catalyst filter manufactured by impregnating one or more mixed metallic salt or platinum salt. Claims 2-12 and 14-21 also comply with Article 33(2) and (3) PCT as they are dependent claims on claims 1 and 13 respectively.

2. Industrial Applicability

The subject matter of claims 1-21 is considered to be industrially applicable under Article 33(4) PCT.